Saturday, October 17, 2015 Chapter Two of Cuban Missile Crisis: How great was the risk of nuclear war in the Crisis, and why was that? DRAFT

At a meeting in the State Department in early November, 1962, a few days after the climax of the missile crisis, President John F. Kennedy quoted a poem by the Spanish bullfighter, Domingo Ortega:

"Bullfighter critics ranked in rows Crowd the enormous Plaza full; But only one man is there who knows And he's the man who fights the bull."

The bullfight in Spain, *corrida de toros*, , the running of the bulls, starts precisely at five o'clock in the afternoon. Federico Lorca starts his "Lament for Ignacio Sanchez Mejias"--mourning his matador friend Mejias, mortally wounded in the bull-ring of Manzanares in 1934-- "At five in the afternoon/It was exactly five in the afternoon," "a las cinco de la tarde," a refrain repeated every other line, twenty-four times in the first part of the poem.

At 4:59 in the afternoon of Saturday, October 27, 1962, sharp pings from the sonar operators on the American destroyer U.S.S. Beale began bouncing off the hull of the submerged Soviet submarine B-59 and "practice" depth charges started to bombard it.

A carrier, five destroyers and several antisubmarine helicopters had their quarry cornered in a narrow sector of the Caribbean and were tormenting it: "signaling," as they supposed, for it to come up and identify itself, a token of vulnerability and surrender, or otherwise waiting it out until it had to come up amidst them, running low on oxygen and electricity, to recharge its batteries.

The crews in the ships on the surface were exulting in their first "live" antisubmarine practice, playing the role of *banderilleros* and *picadors* that taunt and weaken a fighting bull with their darts as it turns and runs at them

until it stands, confused and exhausted before the *matador* awaiting the moment of truth, the final sword thrust.

No one among the ships on the surface—nor any member of the ExComm that had directed this harassment—was aware or even suspected that the Foxtrot-class diesel submarine they were baiting was armed—for the first time in the operations of such vessels —with a nuclear torpedo, with a ten to fifteen kiloton (Hiroshima yield) warhead, capable of destroying several or all of them in one blast. And the commander and crew in the submarine were coming to believe they were under attack.

The blockade had begun three days earlier with the utmost concern on President Kennedy's part about just such an encounter. The 10 AM ExComm meeting on Wednesday, October 24 produced what Robert Kennedy later described as the most intense moment of the crisis precisely on the issue of the signaling procedures with respect to Soviet submarines.

At the moment that the ten o'clock meeting convened, the quarantine became effective, and SAC moved from Defense Condition (DEFCON) 3 to DEFCON 2, the level just below readiness for imminent general nuclear war, for the first and only time in the Cold War.

General Thomas Power, CINCSAC, had, on his own initiative, sent out the execute orders for this change in the clear, uncoded, to intimidate the Soviets. 1456 US strategic bombers, with nuclear weapons aboard, were on alert around the world. And for the first time one-eighth of SAC was on airborne alert continuously, rotating, one nuclear-armed bomber taking off as another finished a tour and landed.

McNamara told the meeting that two ships, both possibly carrying offensive weapons, were approaching the quarantine line, and that there were submarines close to each of them. The plan was to intercept one, to begin, with a destroyer.

From the transcripts of the ExComm meetings, taped secretly at the time by President Kennedy but not transcribed and made available until 35 years later:

McNamara: "Previously, it had been thought it would be wise to use a cruiser. But, because of the Soviet submarine, at the time of intercept, it's believed that it would be less dangerous to our forces to use a destroyer."

President Kennedy: If this submarine should sink our destroyer, then what is our proposed reply?

Taylor [never answering this]: Well, our destroyer, first, will be moving around all the time and the submarine is going to be covered by our antisubmarine warfare patrols. Now, we have a signaling arrangement with that submarine to surface, which has been communicated I am told by...to—

Alexis Johnson: I sent it [to the Soviets] last night, yes...

I sent the identification procedures for a submarine. I sent a message to Moscow last night saying that, in accordance with the President's proclamation, the Secretary of Defense has issued the following procedures for identification of submarines, and asked the embassy to communicate this to the Soviet government, and said this is also being communicated to other governments, this would be a general regulation. Whether they....I have not got acknowledgment of receipt of that.

[DE note: no acknowledgement was ever received.]

"As far as our proclamation is concerned, it was delivered to the Soviet foreign office last night and very promptly returned.

Rusk: I presume they took a look at it.

Alexis Johnson: It was also delivered to the embassy here last night. We have not yet received it back. But these identification procedures should be in their hands.

They are standard...I understand they are an addition to standard international practice accepted by the Soviets?

McNamara: No. This is a new procedure I asked them to set up yesterday, Alex.

Alexis Johnson: It is a new procedure.

McNamara: Here is the exact situation. We have depth charges that have such a small charge that they can be dropped and they can actually hit the submarine, without damaging the submarine.

Taylor: They're practice depth charges.

McNamara: Practice depth charges. We propose to use those as warning depth charges. The message that Alex is talking about states that, when our forces come upon an unidentified submarine we will ask it to come to the surface for inspection by transmitting the following signals, using a depth charge of this type and also using certain sonar signals which they may not be able to accept and interpret. Therefore, it is the depth charge that is the warning notice and the instruction to surface. "

Moments later McNamara said, "I'm sure that it [the signaling procedure] go the Soviet Union back to the submarine." [DE Note: it had not. The four submarine commanders in the Caribbean all denied in later interviews that they had gotten any such message.]

McNamara: What the plan is, Dean [Rusk], is to send antisubmarine helicopters out to harass the submarine. And they have weapons and devices that can damage the submarine. And the plan, therefore, is to put pressure on the submarine, move it out of the area by that pressure, by the pressure of potential destruction, and then make the intercept. But this is only a plan and there are many, many uncertainties.ⁱ

Robert Kennedy has recorded his reaction, and his brother's, at the moment of these explanations from McNamara, first in a note he wrote to himself later that afternoon and at greater length in his posthumous memoir Thirteen Days, edited from his notes by Ted Sorensen in 1969.

In the handwritten note of October 24 found among his papers, referring to this exchange that morning, he said:

"these few minutes were the time of greatest worry by the President. His hand went up to his face & covered his mouth and he closed his fist. His eyes were tense, almost gray, and we just stared at each other across the table."

In the later account, he prefaces these sentences on his memory of the moment:

"Was the world on the brink of a holocaust? Was it our error? A mistake? Was there something further that should have been done? Or not done? His hand went up...We stared at each other across the table. For a few fleeting seconds, it was almost as though no one else was there and he was no longer the President.

"Inexplicably, I thought of when he was ill and almost died; when he lost his child; when we learned that our oldest brother had been killed; of personal times of strain and hurt. The voice droned on, but I didn't seem to hear anything until I heard the President say: "Isn't there some way we can avoid having our first exchange with a Russian submarine—almost anything but that?" "No, there's too much danger to our ships. There is no alternative," said McNamara.

A fair account of the actual transcript of the dialog:

President Kennedy: Kenny?

Kenneth O'Donnell: What if he doesn't surface, then it gets hot?

President Kennedy: If he doesn't surface or if he takes some action—takes some action to assist the merchant ship, are we just going to attack him anyway? At what point are we going to attack him?

I think we ought to wait on that today. We don't want to have the first thing we attack as a Soviet submarine. I'd much rather have a merchant ship.

...McNamara: I think it would be extremely dangerous, Mr. President, to try to defer attack on this submarine in the situation we're in. We could easily lose an American ship by that means."

A few minutes later, speaking of the ships that would be at the quarantine line within half an hour to an hour, the president was saying that "if we have this confrontation and we sink this ship, then we would assume there would be a blockade...in Berlin which would be completely...which they would say that there's no movement in and out of Berlin—a blockade. Then we

would be faced with ordering in air in there, which is probably going to be shot down, which is... What is then our situation? What do we do then?"

Paul Nitze, the specialist on Berlin options, began telling him of fighters that would "try to shoot down their planes, and keep the air corridor open up to the point where it looks as though this is militarily no use.," then perhaps moving to "phase two" in the programmed menu of escalation.

He hadn't gotten to the point of escalation to nuclear war (by us) when the DCI John McCone broke in with confirmation (after a vague, preliminary report earlier in the meeting) that six Soviet ships approaching the quarantine line had stopped dead in the water or had reversed course.

Moments before that, when the president raised the prospect of a Berlin blockade, Robert Kennedy had been thinking (Thirteen Days, p. 48),

"We had come to the time of final decision...I felt we were on the edge of a precipice with no way off...One thousand miles away in the vast expanse of the Atlantic Ocean the final decisions were going to be made in the next few minutes. President Kennedy had initiated the course of events, but he no longer had control over them."

That last sentence was true. It was true despite the news that McCone brought moments later, after which Robert Kennedy reports that, "The meeting droned on. But everyone looked like a different person. For a moment the world had stood still, and now it was going around again."

But—unknown to Robert Kennedy in his lifetime or to any of the others on the ExComm for decades—the moment of truth had only been postponed. Three days later it loomed several times during what participants later referred to as Black Saturday, October 27. 1962. They were alluding to a whole series of incidents during that day—described later in this chapter—without even being aware, for the next forty years, of the most dangerous of these: the contest that began in the Sargasso Sea at almost precisely five o'clock that afternoon.

There had been no interceptions nor even signaling to submarines on Wednesday, the 24th. The president gave orders to lay off that day, lest we attack a vessel that had actually been ordered to return by Khrushchev. But

the Navy continued energetically to track Soviet submarines in the area in succeeding days, with the intention, as McNamara had explained to the president, of harassing them to the point of their leaving the vicinity.

In the course of the next week, Navy destroyers, carriers and helicopters had located precisely, at various times, three of the four Foxtrot submarines that had been dispatched in Project Anadyr (the Soviet codename for the campaign, chosen not to suggest any connection with the Caribbean).

None of them responded to the mock depth charge "signals" to surface and identify themselves. None of them, it turned out later, interpreted the explosions as signals at all, not having received any information to this effect from Moscow, with which they were only intermittently in touch. Nor did they experience them as "harmless."

Two of them, in fact, believed themselves at certain points to be under attack. On both of these submarines, the commanding officer ordered the "special weapon," the torpedo with a Hiroshima-sized nuclear explosive power, to be readied for a retaliatory response.

The second of these incidents actually occurred on October 30, or two days after the world had concluded that the crisis was over. American surveillance and efforts to force Soviet submarines to surface continued until the quarantine was ended on November 20, but the submarines, still trying to evade detection, had not received messages as to whether war had begun or not.

Submarine B-130, under Captain Shumkov—the same sub whose temporary detection six days earlier had brought President Kennedy's hand to his mouth--submerged suddenly on October 30 on being spotted by a destroyer, but could do so only slowly because two of its diesel engines had failed. The destroyer passed overhead, the sonar dome missing the conning tower by only a few meters. Shumkov wondered whether the destroyer was trying to ram it, possibly presenting it afterwards as an accident. Unless, perhaps, they were already at war.

Savranskaya (who interviewed Shumkov): "Constant explosions of depth charges created an atmosphere in which Shumkov was wondering whether the situation fitted the scenario described by Rassokha, 'if they slap you on

the right cheek ...'. 29 According to Shumkov, one of the depth charges landed a direct hit on the hull, and its explosion damaged the depth steering wheel. At the same time, he received a report from Compartment 6 of the submarine, reporting that they experienced a leak (which was later repaired). For a moment, the commander actually thought that his boat was under a US attack."

The reference to Rassokha referred to the briefing the four captains had received the day before they left for Cuba, on circumstances in which they could fire their special weapons. The written orders in their sealed packets, to be opened only at sea, that they received on this occasion said that nuclear weapons could be used only on special orders from the Defense Minister.

But, as in the case of the nuclear weapons on Cuba (discussed later) their oral instructions seemed different, and broader. According to Ryurik Ketov, commander of B-4, "The only person who talked to us about those weapons was Vice- Admiral Rassokha. He said,

'Write down when you should use these. . . . In three cases. First, if you get a hole under the water. A hole in your hull. This is the first case. Second, a hole above the water. If you have to come to the surface, and they shoot at you, and you get a hole in your hull. And the third case – when Moscow orders you to use these weapons'. These were our instructions. And then he added, 'I suggest to you, commanders, that you use the nuclear weapons first, and then you will figure out what to do after that.'

But Shumkov said elsewhere that it was Admiral Fokin (not Rassokha) who gave an even broader license at this same briefing, which he was beginning to think might apply under the circumstances, in the absence of any communications with Moscow: "If they slap you on the left cheek, do not let them slap you on the right one".

As Shumkov said in a later interview: "When they blew up those grenades, I thought they were bombing us." "iii

In the account by Peter Huchthausen, Shumkov ordered the flooding of four torpedo tubes, preparatory to firing, including the tube for the special weapon. He quickly got a call from the special weapon security officer in

the forward torpedo tube, who warned him, "Sir, we can't arm that torpedo without specific instructions from the Special weapons Directorate of the Main Navy Staff,..."

Shumkov cut him off: "Why the hell don't you dial the headquarters on your little telephone and ask them? Or doesn't it work a hundred meters below the sea?" He ordered the young officer, "Look, just do as you're told, and I'll handle the permission." As the conversation ended, the special weapons officer passed out. "Just pitched forward on his face," Shumkov's exec, Frolov, told him; "he's been sick off and on for days."

Shumkov pulled Frolov by the arm out of earshot from the others and whispered, "I have no intention of arming or shooting that weapon. We'd go up with it if we did. That conversation was for his ears," and he nodded over at the zampolit, [the Communist Party political officer] who was looking at the depth gauge. "Regardless of what happens I know he'll report what I was or wasn't prepared to do."

Frolov stared at the captain for a moment, then slowly nodded in full understanding. The skipper was covering his ass by appearing ready to fire the special torpedo, but in fact had no intention of firing anything. The zampolit would report it all, if they survived. Huchthausen, Peter A. (2007-08-03). October Fury (p. 210). Turner Publishing Company. Kindle Edition.

What seems significant about this story is that it implies Shumkov believed it would look better for him—in the political officer's report to his superiors—if he had appeared ready to use the special weapon against his pursuers, despite the absence of any authorization from Moscow.

Such a judgment would have been sound, judging from the reception the four captains got when they returned to port, which was even colder than they expected, three of them having been discovered by American antisubmarine forces and having chosen eventually to surface under the guns of those forces rather than to suffocate or go down (or to use their weapons, starting with the special one).

According to Savranskaya, "The worst fear of a submarine captain, according to the testimony of all four captains, was to be discovered and

brought to the surface by an enemy ship. Not only was a discovery seen as utter humiliation, but even more importantly, it was a violation of their orders, which could bring severe consequences upon their return to the Soviet Union."

Their fears for their careers were warranted. The day after they returned to port they were debriefed at a commission that was "aimed exclusively at uncovering violations of orders, documents, or instructions by the commander or by the personnel'." The commanders were especially criticized for violating the conditions of secrecy by surfacing."

Marshal Grechkov's reaction, after the hearing on their return, was "I would have better sunk than come to the surface." VI Several officers said that the captains should have used their weapons against the US ships instead of surfacing. VII

Meanwhile, the mental and physical conditions of the crewmen and officers did not make for decisions to be made in a calm and reflective manner, as they twisted and turned to trick their pursuers. Captain Third Rank Anatoly Andreeev kept a journal in the form of a letter to his wife:

Inside the sub it's terribly hot. Even in the coolest places the temperatures are +35°C or higher.[95 fahrenheit] The heat's driving us crazy. You know how much I "love" heat, as much as you "love" cold. Humidity's gone way up. It's getting harder and harder to breathe. Everyone's walking about wearing nothing but shorts and sandals, only the officer-on-deck puts on a navy blue jacket, for propriety's sake.

Well, our "friends" the Americans fixed us but good. They won't let us show our noses on the surface; even at night they won't leave us alone. And in such a situation, when you'd think all this was bad enough, the commander's nerves start fraying around the edge.

We are in the enemy's lair, and we can't reveal our presence to them, but they sense our nearness and are searching for us. They detected us yesterday, but we managed to escape. Something exploded somewhere, but at a distance from us, so we don't know how serious it was. But here, inside the sub, the situation is very serious. The men are feeling notably worse, a lot of them are ill, people are fainting,

many have swollen feet, no one can sleep in this monstrous heat and stuffy air, even though everyone is very tired and weak. Everyone's skin is covered with rash, ...

I now have the following ration: after I am relieved from watch, I go straight to bed without breakfast, as it's a tiny bit cooler at that time; then, at lunchtime, I drink a cup of compote; at suppertime, a dairy meal and a cup of compote; and then evening tea, two cups. Freshwater is strictly rationed, only for cooking, and even that is and everyone is also thirsty. That's all everyone's talking about: thirst. Oh, how thirsty I am. It's hard to write, the paper is soaked in sweat. We are all looking like we just came out of a steam bath. ...

The worst thing is that the commander's nerves are shot to hell, he's yelling at everyone and torturing himself. You can tell he's never before been on independent voyages: he doesn't realize he should be saving his own strength and the men's, too, otherwise we are not going to last long. He is already becoming paranoid, scared of his own shadow. He's hard to deal with. I feel sorry for him and at the same time angry with him for his rash actions.

... For the last four days, they didn't even let us come up to the periscope depth. [Meaning that they were not able to receive any communications from Moscow or information from radio intercepts – translator's note] My head is bursting from the stuffy air. ... Today three sailors fainted from overheating again. ... We are sailing with a risk of dropping down to six thousand meters. This is how much we have under [our boat]. The regeneration of air works poorly, the carbon dioxide content in rising, and the electric power reserves are dropping. Those who are free from their shifts, are sitting immobile, staring at one spot. ... Temperature in the sections is above 50. In the diesel – 61 degrees. [Fahrenheit: above 122; diesel, 141.8]

At 1523, 3:23 pm on the afternoon of Saturday, October 27, a pilot waiting to return to the USS Randolph spotted a snorkel miles off and flew over to investigate. The B-59, realizing the presence of a surveillance plane but not sure whether it had been spotted, performed an emergency dive. Destroyers

from the Randolph's hunter-killer group cruised over to pick up sonar signals. At precisely 4:59 pm the corrida commenced. Deck log of the USS Beale: "1649 Dropped 5 hand grenades as challenge to submarine for identification. No response. 1710 Challenged submarine on sonar. No response." At 1719, half an hour after the Beale had begun "challenging," the USS Cony joined in, dropping five hand grenades and sending sonar pings.

Fifty years later, a PBS documentary featured interviews with officers who had been on either end of these "communications": Gary Slaughter and Andy Bradick, ASW (antisubmarine warfare) officers on the USS Cony and Viktor Mikhailov, Commander of Steering on board the B-59 down below.

Gary Slaughter: "we dropped the five practice depth charges to invite the submarine to come to the surface.

Viktor Mikhailov: "There is a specific signal that we have, and that is 3 explosions, grenade explosions, which means you have to surface. I don't know what the Americans were doing, but it wasn't three..."

Gary Slaughter: We had so many weapons and so many sonar's... He was like a rabbit inside a small cage, and 15 of us hounds outside the cage, and 15 hawks above the cage, that rabbit was dead.

...We were all exhilarated, there was no fear, we knew our jobs, and we were just kind of rubbing our hands saying, god, we at last get a chance to play what we've been practicing to do for all these years. And that's what it felt like. We felt privileged, to be able to show our stuff."

In their own minds—not yet being in a state of war--the commanders and officers in Hunter-Killer Group Alfa in the Sargasso Sea meant no harm to the men below. No permanent harm.

Gary Slaughter: "Our sonar could essentially be used as a an offensive weapon. ...it was like, there are five huge men, pounding on the barrel. And every destroyer within any close proximity. and there were three or four sort of circling around us, were doing the same thing...it's got to drive them crazy.

...We weren't trying to kill them; we could, we could have very easily killed that submarine, we wanted to harass it. We knew they were probably having difficulty breathing, it was hot as hell in there, it was miserable, they were cramped together, and they had been under great strain for a long time. So what we were trying to do is basically apply passive torture.

... Frankly I don't think we felt very sympathetic at all. They were the enemy."

Andy Bradick: "'Hunt to exhaustion'. You would keep contact on the submarine until he had to surface because his batteries are going flat. So when his batteries were exhausted, he had to come to the surface and recharge his batteries."

But it wasn't clear to the men under the surface that the objective of the hunters was that limited. Nor did they see coming to the surface under the guns, or at best the mockery, of the ships of the US navy as their only choice, as their batteries approached exhaustion. They could go down: as Marshal Grechko told them on their return he would have done, instead, and others echoed that they should have done, rather than surface.

As Arkhipov's widow recalled her husband's account of that debriefing:

Olga Arkhipova: "'It would have been better had they drowned': you see this is what they call a welcome."

Or as some other superiors at the commission investigating their possible violations of orders told them, rather than surface they should have violated their written orders under the circumstances. Despite lack of authorization from Moscow, they should have used their weapons. Starting, from what they had been told on departing, with the special weapon.

The first any Americans heard of this latter choice as a possibility—in response to the conditions that McNamara's directive and the Navy's practices had been imposing on Soviet submarines that were, unknown to US intelligence and decision-makers, armed with nuclear-tipped torpedoswas forty years later.

At the Havana conference on the fortieth anniversary of the crisis in 2002,

and in subsequent interviews—to an audience that included Robert McNamara, McGeorge Bundy and naval officers [], Vadim Orlov, chief of the special signals intelligence detachment on the B-59 described conditions underwater that Saturday afternoon from the point of view of the men in the barrel, the rabbit in the cage, or more precisely, a *toro* facing death with nuclear-tipped horns.

"For some time we were able to avoid them quite successfully. However, the Americans were not dilettantes either... [starting at 4:59 in the afternoon of Saturday, October 27] they surrounded us and started to tighten the circle, practicing attacks and dropping depth charges. They exploded right next to the hull. It felt like you were sitting in a metal barrel, which somebody is constantly blasting with a sledgehammer...

The temperature in the compartments was 45-50 C, up to 60C in the engine compartment. [Fahrenheit: 113-122, up to 140] The level of CO2 in the air reached a critical mark practically deadly for people. One of the duty officers fainted and fell down. Then another one followed, then the third one...They were falling like dominoes. But we were still holding on, trying to escape. We were suffering like this for about four hours.

The Americans hit us with something stronger than the grenades—apparently with a practical depth bomb. We thought—that's it—the end.

After this attack, the totally exhausted Savitsky, who in addition to everything, was not able to establish connection with the General Staff, became furious. He summoned the officer who was assigned to the nuclear torpedo, and ordered him to assemble it to battle readiness.

"Maybe the war has already started up there, while we are doing somersaults here"—screamed emotional Valentin Grigorievich, trying to justify his order. "We're going to blast them now! We will die, but

we will sink them all—we will not disgrace our Navy!"x

An alternate translation of the last clause: "we will not become the shame of the fleet."

Orlov's account continues: "But we did not fire the nuclear torpedo – Savitsky was able to rein in his wrath. After consulting with Second Captain Vasili Alexandrovich Arkhipov and his deputy political officer Ivan Semenovich Maslennikov, he made the decision to come to the surface."

In an interview with Savranskaya, "Orlov emphasized the crucial role played by the brigade chief of staff Vasili Arkhipov in talking Captain Savitski out of any rash actions." xi

But there is more to that story. At least two officers were required to agree on the firing of the special weapon: the captain and the political officer, in this case Maslennikov. According to Orlov, Maslennikov agreed with Savitsky's order. On another sub that would have been sufficient. These two each had half of a key that was required to fire the special weapon. (The special weapons officer next to the torpedo also had a key).

But on this submarine, a third concurrence was required, because the chief of staff of the brigade, Vasili Arkhipov was travelling with them. In terms of command on the vessel, Arkhipov—who was of the same rank as Savitsky—was second to the commander, Savitsky. And as Ketov put it, "The commander is 'the second in command after God': these are the rules the submarines live by."

Nevertheless, for this decision, because of his role in the brigade, Arkhipov's agreement was also required. And he withheld it. He did so on the grounds—which Savistsky and Maslennikov understood as well as he, but which they chose to ignore under the circumstances—that Moscow had not authorized it.

Had Arkhipov been stationed on one of the other submarines (e.g., B-4, which was never located by the Americans) there is every reason to believe that the carrier USS Randolph and several, perhaps all, of its accompanying destroyers would within minutes of the agreement by Savitsky and Maslennikov have been destroyed by a nuclear explosion. Or if not destroyed, drenched in a lethal bath of radioactive water that would incapacitate crew members almost immediately and kill them soon after.

The source of this explosion would have been mysterious to other commanders in the Navy and officials on the ExComm, since no submarines known to be in the region were believed to carry nuclear warheads. (The US Navy warships themselves had nuclear depth charges. There were in fact some Soviet nuclear submarines with nuclear weapons in the zone prior to the quarantine, but their presence had not been detected.)

The clear implication on the cause of the nuclear destruction of this antisubmarine hunter-killer group would have been a medium-range missile from Cuba whose launch had not been detected. That is the event that President Kennedy had announced on October 22 would lead to a full-scale nuclear attack on the Soviet Union.

That chain of events would not have been certain to follow the attack from B-59, if Arkhipov had not vetoed it, and persuaded Savitsky to surface. But it would have been likely, given the commitment of the president, the readiness of the JCS and all US strategic forces to carry it out, and the certainty of the intense pressure by the military and key executive and congressional officials to do so.

John F. Kennedy might not have yielded to that pressure, as Arkhipov did not. That's the reason, the only one, that global nuclear winter as the consequence of using the special weapon was less than certain.

But Kennedy would have been the first head of state to experience such pressure in the circumstances of nuclear attack on his forces, just as Savitsky, Masslennikov, Arkipov and Shumkov were the first—and so far onlymilitary officers in history, with control of nuclear weapons, to face the decision whether or not to use them in response to what appeared to be ongoing enemy attacks on their units.

Shumkov says he did not intend to do so, though he gave the order to prepare it. Savitsky and Maslennikov wanted to use them, against their written orders. Arkhipov did not: and persuaded the other two not to defy him, as they could have done (unlike them, he did not share a control key). Orders and command relationships would hardly have been critical in this case, since they all expected to die if the commander carried out his decision.

Savitsky and Arkhipov are now both dead; but Arkhipov's widow says he told her they came close to firing the nuclear torpedo. Xiii Had that happened,

we would probably not be reading this. Her husband, Vasily Arkhipov, is described by a PBS documentary on the episode, without exaggeration, as "The Man Who Saved the World." xiv

END NOTES

ii Savranskaya, p. 15; Huchthausen

iii Fursenko and Naftali, Khrushchev's Cold War, p. 487, citing a BBC Scotland interview with Shumkov.

iv S.S.

. v S.S. quoting Dubivko, 'In the Depth of the Sargasso Sea' (note 32) p.321.

. vi Dubivko, Alexei Dubivko, 'In the Depths of the Sargasso Sea', in On the Edge of the Nuclear Precipice (Moscow: Gregory Page 1998).

vii S.S.

viii S.S. citing Captain Third Rank Anatoly Andreev's diary, published in Nikolai Cherkashin, 'Povsednev- naya Zhizn' Rossiiskikh Podvodnikov' [Daily Life of Russian Submariners] (Moscow: Molodaya Gvardiya Publishing House 2000) p.111. See <u>Anatoly Petrovich Andreyev, excerpts of diary entries, October 1962</u> (followed by <u>English translation</u>). http://nsarchive.gwu.edu/NSAEBB/NSAEBB399/

ix http://www.pbs.org/wnet/secrets/the-man-who-saved-the-world-watch-the-full-episode/905/ October 23, 2012. transcript: http://www.pbs.org/wnet/secrets/ajax/printable/?id=905&box=2

x Recollections of Vadim Orlov (USSR Submarine B-59), "We Will Sink Them All, But We Will Not Disgrace Our Navy," Source: Alexander Mozgovoi, *The Cuban Samba of the Quartet of Foxtrots: Soviet Submarines in the Caribbean Crisis of 1962* (Moscow, Military Parade, 2002). Translated by Svetlana Savranskaya, National Security Archive. In National Security Archive Briefing Book 399, "The Underwater Cuban Missile Crisis: Soviet Submarines and the Risk of Nuclear War," October 24, 2012, edited by Thomas Blanton, William Burr and Svetlana Savranskaya. http://nsarchive.gwu.edu/NSAEBB/NSAEBB399/

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 $^{\rm xiv}$ <code>http://www.pbs.org/wnet/secrets/the-man-who-saved-the-world-watch-the-full-episode/905/ October 23, 2012.</code>

transcript: http://www.pbs.org/wnet/secrets/ajax/printable/?id=905&box=2

xi Savranskaya.

xii PBS program (below).